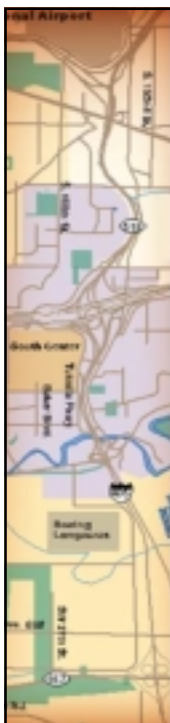


Puget Sound Regional Council

- **Seattle Metropolitan Area**
- **4-County MPO/RTPO**
- **68 Member Jurisdictions**
- **3 Million Population**
- **Top 5 congested metro area (TTI Index)**

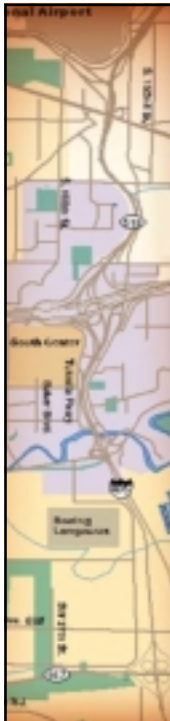
CH2MHILL



Background

- **Funding**
 - Gasoline Tax
 - Region exports tax revenues to rural areas of State
 - Major loss of highway capital and transit, ferry operating revenue due to public initiative (I-695)
 - Available revenues fall far short of needs
- **Coordination**
 - Projects identified by local jurisdictions
 - Some coordination at “sub-area” level
 - Insufficient coordination of regionally significant facilities
 - Investments are not effectively addressing congestion problems

CH2MHILL

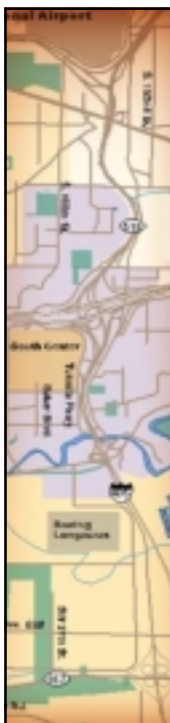


PSRC

Transportation Improvement Program (TIP)

- **Receives project submittals from member jurisdictions**
- **Test projects for consistency with long range (30yr) transportation plan**
- **Maintains TIP Database**
- **Administers federal grant programs**

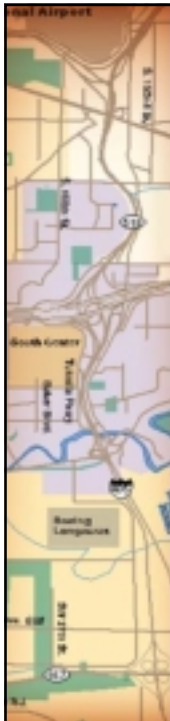
CH2MHILL



Goal of TIP WebGIS

- **Ultimately, to improve the effectiveness by which the region addresses its transportation problem**

CH2MHILL



Goals of TIP WebGIS (cont'd)

- **Improve access to TIP information**
 - Add value to information through spatial presentation
 - Reduce demands on staff time
- **Provide better information to project owners**
 - More systematic selection of projects
- **Provide better information to funding authorities**
 - Adequate information to act on priorities

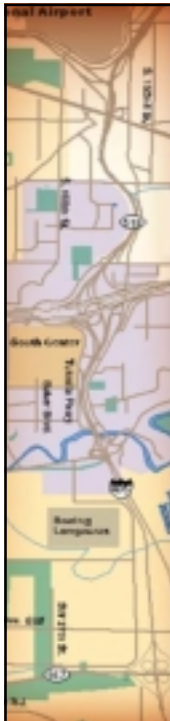
CH2MHILL



Purpose of WebGIS project

- **Proof of Concept**
 - Determine viability of WebGIS technology for delivery of information
 - Determine scope and resources for full public implementation

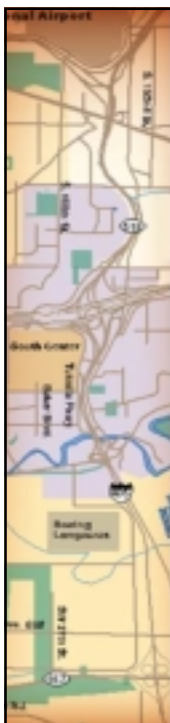
CH2MHILL



Challenges

- **Schedule / Budget**
- **User Profile / Requirements**
- **Database Management / Connectivity**

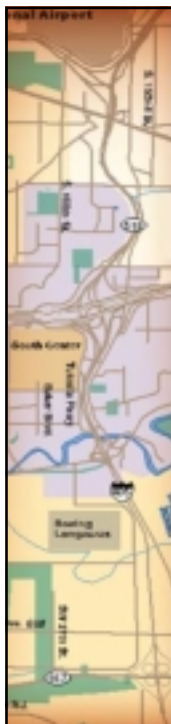
CH2MHILL



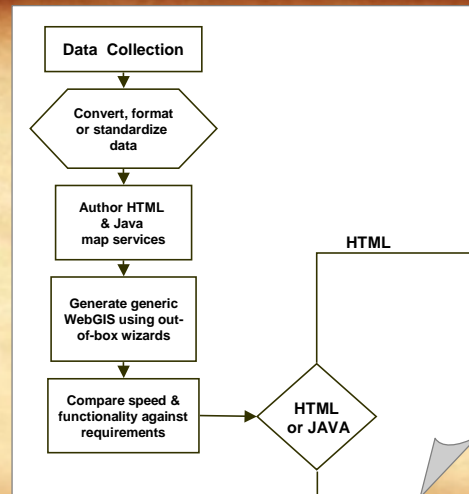
Methodology

- **Software Development Plan**
 - *Construx Software Builders*
 - *Ensure project delivery*
 - *Define process, parameters, and products*
 - *Set and follow monitoring and feedback mechanisms*
 - *Actively confront risks and constraints*
 - *Change control*

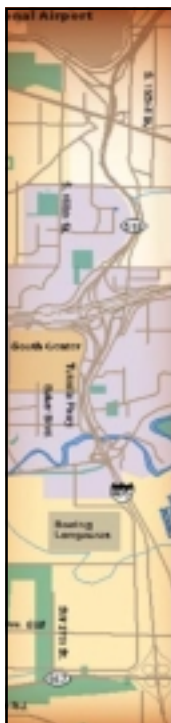
CH2MHILL



Process Model



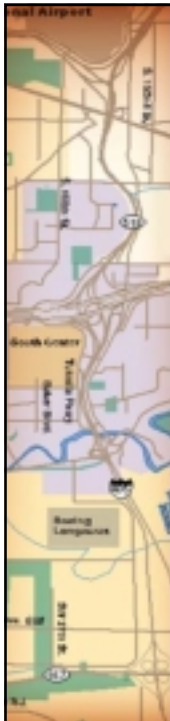
CH2MHILL



Work Product Tracking

| Work Product Name | Planned Completion Date | Change Control? | Deliverable to Client? | Person(s) responsible |
|---|-------------------------|-----------------|------------------------|-----------------------|
| Project Planning | | | | |
| Software Development Plan Creation | 9 June | Yes | Yes | Zilub |
| Top 10 Risk List Completion | 9 June | Yes | No | Glod |
| Specification and Data Development | | | | |
| Software Selection | Completed | Yes | No | POPC |
| Data Model Development | 21 June | Yes | No | Marsh |
| Common Data-Set Completion | 21 June | Yes | No | Marsh |
| Tools (Microsoft) back | 21 June | Yes | No | Marsh |
| Symbol Set Formation | 21 June | Yes | No | Glod |
| Prototype Development | | | | |
| Platform Establishment | 21 June | Yes | No | POPC/Marsh |
| Geographic Database Formation | 21 June | Yes | No | Marsh |
| Tabular Database Formation | 21 June | Yes | No | Marsh |
| Geographic Database Validation | 21 June | No | No | Glod |
| Tabular Database Validation | 21 June | No | No | Glod |
| Data Dictionary Development | TBD | Yes | No | Glod |
| Programming Language Selection | Completed | Yes | No | Marsh |
| User Interface Design Finalized | 14 July | Yes | Yes | Marsh/Glod |
| Prototype Coding | 21 June | Yes | No | Marsh |

CH2MHILL



Risk Management

3.1 Risk Management

Risks to the successful development and delivery of the product within budget and on-schedule:

| Rank | Impact | Risk | Risk Resolution Process |
|------|--------|---|--|
| 1 | High | Undefined external demonstration server requirements (hardware spec, licensing) | Work with vendor, IT specialist to resolve |
| 2 | Med | Unachievable schedule | Discuss possible alternative schedule w/client. Clear Troy's schedule. |
| 3 | Med | New, unproven development platform | Consult vendor support resources, schedule developer consultation |
| 4 | Med | Unforeseen technical obstacles encountered in customization | Plan contingencies for each functionality requirement |
| 5 | Low | Internal server software not yet obtained | Follow up w/PSRC on status of acquisition |

CH2MHILL



Results

- Project delivered on-time and within budget
- Full functionality provided in accordance with specification
- Highly customized client GUI (HTML, Javascript)
- Database issues deferred to later phase
- Performance and reliability testing completed in January 2001
- Buffering function has problems

CH2MHILL



- CH2MHILL



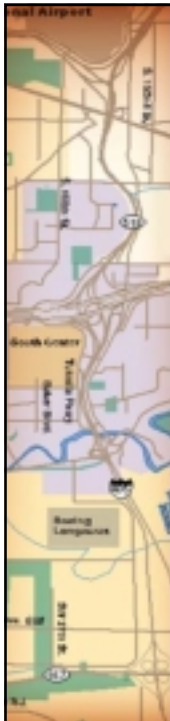
- **PSRC Model may be too coarse to evaluate benefits of projects regionally significant**
- *KC DOT performance measures apply to corridors and swaths to help monitor progress and test alternatives*
- *KC DOT Model is regionally correct with local detail*

CH2MHILL



- **Small agencies do not have staff expertise to test and develop multi-modal solutions**
- *KC DOT TOOLS provides staff time and tools with regional sophistication to help test alternatives*

CH2MHILL



Constituent Issues to Address

- **Local agencies may not want to participate especially if their tools are better**
- *KC DOT TOOLS will provide maximum benefit to all if most participate*
- *More sophisticated cities have boundary issues*
- *Greatest benefit to small agencies with small staff*

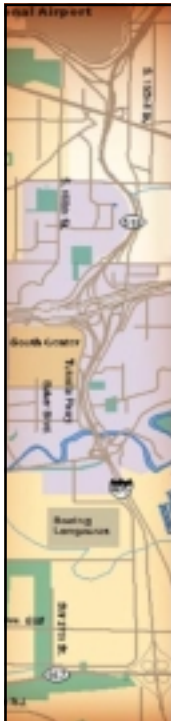
CH2MHILL



Political Issues to Address

- **Governance Issues**
- *KC DOT TOOLS and Hierarchy do not challenge agency autonomy and provide a valuable service*

CH2MHILL



Client Issues to Address

- **Emerging Accountability Requirements**
- *The Public has acknowledged the need for financing transportation investments, but wants to hold responsible agencies accountable.*

CH2MHILL



Organizational Issues to Address

- **Distributed resources / ownership**
- *Capabilities to deliver services reside in separate business units with different missions / goals*

CH2MHILL

